

**PROPOSED AMENDMENTS TO AIR TOXICS STANDARDS AND  
NEW SOURCE PERFORMANCE STANDARDS FOR PORTLAND CEMENT MANUFACTURING**

**FACT SHEET**

**OVERVIEW OF ACTION**

- On June 22, 2012, the U.S. Environmental Protection Agency (EPA) proposed amendments to two 2010 air rules for Portland cement manufacturing.
- The proposed amendments would adjust the way cement kilns continuously monitor particulate matter (PM) emissions, would adjust certain emissions limits and would extend the compliance deadline for existing kilns. EPA is making the proposed changes in response to a federal court decision and petitions for reconsideration. EPA issued the proposed amendments today under a settlement agreement with the cement industry.
- Today's proposal would retain several key air toxics emission limits in the 2010 rules, including limits for mercury, hydrochloric acid and total hydrocarbons. These limits will dramatically cut emissions of these harmful pollutants from cement production.
- Today's proposal applies to two rules the agency issued in August 2010: air toxics standards for new and existing cement kilns, and new source performance standards (NSPS) for new kilns.
- Based on new technical information, EPA is proposing to make changes to the methods for particulate matter (PM), along with changes to the PM emission limits that would be necessary with the monitoring change. Kilns would still be required to continuously monitor PM emissions under today's proposed amendments, which are not expected to have a significant impact on PM reductions from the final rule.
- In addition, today's proposal would:
  - Extend the compliance date for existing kilns under the air toxics standard by two years from September 2013 to September 2015. The agency believes additional compliance time is warranted to allow the cement industry to reassess its emission control strategies in light of the proposed changes to the PM limits and monitoring methods. EPA is seeking comment on the length of the proposed compliance extension.
  - Revise the open clinker pile standards from the 2010 final rule by allowing facilities to choose from a list of work practices to control fugitive emissions. The work practices would apply to any open clinker piles, regardless of the quantity of clinker or the length of time that the clinker pile exists.
  - Change the alternative emission limit for organic air toxics; kilns may meet this limit in lieu of meeting a limit for total hydrocarbons.
- Portland cement manufacturing is an energy-intensive process that grinds and heats a mixture

of raw materials such as limestone, clay, sand and iron ore in a rotary kiln. That product, called clinker, is cooled, ground and then mixed with a small amount of gypsum to produce cement.

- A variety of pollutants are emitted from the burning of fuels and heating of raw materials. Emissions also can occur from grinding, cooling and materials-handling steps in the manufacturing process.
- In developing the proposed air toxics limits, EPA excluded data from cement kilns that burn non-hazardous solid waste. Those kilns would be subject to another proposed rule, the proposed emission standards for [Commercial/Industrial Solid Waste Incinerators](#).
- EPA will accept comment on the proposed changes for 30 days after the proposal is published in the Federal Register. The agency will hold a public hearing if requested to do so.

### PROPOSED EMISSIONS LIMITS

- Today’s amendments apply to two rules for the cement industry: air toxics standards, and new source performance standards. The table below shows the emission limits for air toxics in the 2010 rules and the proposed changes:

Emission limit for:	2010 Limits for Existing Source Kilns	Proposed Limits for Existing Source Kilns	2010 Limits for New Source Kilns*	Proposed Limits for New Source Kilns *
<b>Mercury</b> <i>(major and area sources)</i>	55 pounds per million tons of clinker, averaged over 30 days	55 pounds per million tons of clinker, averaged over 30 days	21 pounds per million tons of clinker, averaged over 30 days	21 pounds per million tons of clinker, averaged over 30 days
<b>Total Hydrocarbons</b> <i>(major and area sources)</i>	24 parts per million by volume (ppmv), averaged over 30 days	24 ppmv, averaged over 30 days	24 ppmv, averaged over 30 days	24 ppmv, averaged over 30 days
<b>Particulate Matter</b> (as a surrogate for toxic metals other than mercury) <i>(major and area sources)</i>	0.04 pounds per ton of clinker, 30-day rolling average. Continuous monitoring required to ensure compliance.	0.07 pounds per ton of clinker; site-specific operating limits determined based on mandatory annual stack test (three runs). Continuous monitoring required to ensure compliance.	0.01 pounds per ton of clinker, 30-day rolling average. Continuous monitoring required to ensure compliance.	0.02 pounds per ton of clinker; site-specific operating limits determined based on mandatory annual stack test (three runs). Continuous monitoring required to ensure compliance.
<b>Hydrochloric acid</b> (major)	3 ppmv, averaged	3 ppmv, averaged	3 ppmv, averaged	3 ppmv, averaged

sources only)	over 30 days	over 30 days	over 30 days	over 30 days
* New Source limits apply to all cement kilns built after June 16, 2008.				

## BACKGROUND

- On August 6, 2010, EPA issued amendments to two rules that will significantly reduce emissions of mercury and other air toxics and particle-forming pollutants from new and existing Portland cement kilns across the United States. The rules also will limit emissions of ozone and particle-forming pollutants from new kilns.
- EPA's amended *air toxics standards* will reduce air emissions of mercury, non-dioxin organic air toxics (measured as total hydrocarbons), hydrochloric acid and non-mercury toxic metals (measured as particulate matter) from both new and existing cement kilns. The rules apply both to "major" and "area" source kilns that emit toxic air pollutants. Air toxics, also known as hazardous air pollutants, are known or suspected to cause cancer or other serious health effects.
- A "major source" of air toxics emits 10 or more tons a year of a single air toxic, or 25 or more tons of a combination of air toxics. Sources emitting lesser amounts are known as "area sources."
- Following publication of the 2010 rules in the Federal Register, EPA received four petitions for reconsideration. The petitions were filed by: Earthjustice; the Portland Cement Association and several companies; Eagle Materials; and the Natural Resources Defense Council. The agency agreed to reconsider several of the issues raised in the petitions and denied others.
- On December 9, 2011, U.S. Court of Appeals for the D.C. Circuit found that EPA's emission standards for the cement industry were legally sound, but remanded the rules to EPA to account for rule proposed before the cement standards we issued. The court stayed the standards for open clinker piles, which EPA was in the process of reconsidering. As a result of the December 2011 court ruling, EPA also reconsidered the cement kiln, clinker cooler and raw materials dryer emission limits in the 2010 rule.

## HOW TO COMMENT

- EPA will take written comment on the proposed standards for 30 days after the proposal is published in the Federal Register. The Agency also will hold a public hearing if requested.
- There are multiple ways to submit written comments on the proposal. To ensure EPA receives your comments, identify them with this Docket ID number: **EPA-HQ-OAR-2011-0817**. Then submit them by any of the following methods:

- Go to [www.regulations.gov](http://www.regulations.gov) and follow the on-line instructions for submitting comments.
- **Send comments by e-mail** to a-and-r-Docket@epa.gov, Attention Docket ID No. EPA-HQ-OAR-2011-0817.
- **Fax your comments** to: 202-566-1741, Attention Docket ID. No. HQ-OAR-2011-0817.
- **Mail your comments** to: Air and Radiation Docket and Information Center, Environmental Protection Agency, Mail Code: 6102T, 1200 Pennsylvania Ave., NW, Washington, DC, 20460, Attention Docket ID No. HQ-OAR-2011-0817.
- **Deliver comments in person** to: EPA Docket Center, 1301 Constitution Ave., NW, Room 3334, Washington, D.C. Note: In person deliveries (including courier deliveries) deliveries are only accepted during the Docket's normal hours of operation. Special arrangements should be made for deliveries of boxed information

**TO READ THE PROPOSED RULE AND OTHER INFORMATION:**

- **Visit EPA's website** at: <http://www.epa.gov/ttn/oarpg/ramain.html> to read the rule and fact sheets summarizing today's proposal.
- Other places to read the proposed rule and background information (use Docket ID No. EPA- HQ-OAR-2011-0817):
  - **EPA's electronic public docket and comment system** at <http://www.regulations.gov>.
  - **The EPA Docket Center's Public Reading Room** (for hard copies).
    - The Public Reading Room is located at EPA Headquarters, Room Number 3334 in EPA West Building, 1301 Constitution Avenue, NW, Washington,
    - DC. Hours of operation are 8:30 a.m. to 4:30 p.m. eastern standard time, Monday through Friday, excluding federal holidays.
    - You will have to show photo identification, pass through a metal detector, and sign the EPA visitor log. Any materials you bring with you will be processed through an X-ray machine as well. You will be provided a badge that must be visible at all times.
- Additional technical information on Portland cement manufacturing is available at <http://www.epa.gov/ttn/atw/pcem/pcempg.html>.
- For further technical information about the rule, contact Sharon Nizich of EPA's Office of Air Quality Planning and Standards at (919) 541-2825 or [nizich.sharon@epa.gov](mailto:nizich.sharon@epa.gov) .